

APPENDIX B1
DP-831
LIQUID EFFLUENT ANALYSIS




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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
HE-COM DP-831 1 st quarter Sewage Samples	Radium 226	< 0.3	pCi/L
	Radium 228	< 2	pCi/L
	Nitrate/Nitrite	1.0	mg/L
	Nitrogen/Kjeldahl	76	mg/L
	Total Dissolved Solids	1600	mg/L
	Total Dissolved Solids	16000	mg/L
	Total Dissolved Solids	15000	mg/L
HE-COM DP-831 2 nd quarter Sewage Samples	Radium 226	< 0.6	pCi/L
	Radium 228	2.7 +/- 1.0	pCi/L
	Nitrate/Nitrite	0.2	mg/L
	Nitrogen/Kjeldahl	46	mg/L
	Total Dissolved Solids	1700	mg/L
	Total Dissolved Solids	12000	mg/L
	Total Dissolved Solids	12000	mg/L
HE-COM DP-831 3 rd quarter Sewage Samples	Radium 226	4.0 +/- 0.6	pCi/L
	Radium 228	< 2	pCi/L
	Nitrate/Nitrite	< 0.1	mg/L
	Nitrogen/Kjeldahl	48	mg/L
	Total Dissolved Solids	30000	mg/L
	Total Dissolved Solids	31000	mg/L
	Total Dissolved Solids	5500	mg/L
HE-COM DP-831 4 th quarter Sewage Samples	Radium 226	< 0.6	pCi/L
	Radium 228	1.1 +/- 0.6	pCi/L
	Nitrate/Nitrite	0.1	mg/L
	Nitrogen/Kjeldahl	71	mg/L
	Total Dissolved Solids	2400	mg/L
	Total Dissolved Solids	16000	mg/L
	Total Dissolved Solids	15000	mg/L

APPENDIX B2
NONRADIOLOGICAL SOIL ANALYSIS



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-NW1 Terrestrial Surface Non-Radiological North West 1 	Saturation Percent	27	%
	Conductivity	.19	mmhos/cm
	Chloride	8	mg/kg
	pH	8.5	pH
	Calcium, total	58	mg/kg
	Potassium, total	26	mg/kg
	Magnesium, total	6	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	30	%
	Conductivity	.22	mmhos/cm
	Chloride	24	mg/kg Dry
	pH	8.2	pH
	Calcium, total	60	mg/kg
	Potassium, total	32	mg/kg
	Magnesium, total	7	mg/kg
	Sodium, total	9	mg/kg
	Sodium Absorption Ratio	.29	SAR
	Saturation Percent	27	%
	Conductivity	.13	mmhos/cm
	Chloride	28	mg/kg Dry
pH	8.0	pH	
Calcium, total	32	mg/kg	
Potassium, total	14	mg/kg	
Magnesium, total	4	mg/kg	
Sodium, total	3	mg/kg	
Sodium Absorption Ratio	.13	SAR	
Saturation Percent	29	%	
Conductivity	.15	mmhos/cm	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-NW1 Terrestrial Surface Non-Radiological North West 1 (continued)	Chloride	20	mg/kg Dry
	pH	7.7	pH
	Calcium, total	37	mg/kg
	Potassium, total	27	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	4	mg/kg
	Sodium Absorption Ratio	.17	SAR
	Saturation Percent	15	%
	Conductivity	.1	mmhos/cm
	Chloride	11	mg/kg Dry
	pH	8.2	pH
	Calcium, total	23	mg/kg
	Potassium, total	12	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	7	mg/kg
	Sodium Absorption Ratio	.36	SAR
	Saturation Percent	28	%
	Conductivity	.15	mmhos/cm
	Chloride	6	mg/kg Dry
	pH	8.8	pH
Calcium, total	36	mg/kg	
Potassium, total	22	mg/kg	
Magnesium, total	9	mg/kg	
Sodium, total	4	mg/kg	
Sodium Absorption Ratio	.15	SAR	
TS-NW2 Terrestrial Surface Non-Radiological North West 2	Saturation Percent	32	%
	Conductivity	.10	mmhos/cm
	Chloride	8	mg/kg Dry
	pH	7.0	pH
	Calcium, total	21	mg/kg



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-NW2 Terrestrial Surface Non-Radiological North West 2 (continued)	Potassium, total	18	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.16	SAR
	Saturation Percent	33	%
	Conductivity	.12	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.9	pH
	Calcium, total	25	mg/kg
	Potassium, total	25	mg/kg
	Magnesium, total	5	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.14	SAR
	Saturation Percent	34	%
	Conductivity	.09	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.6	pH
	Calcium, total	21	mg/kg
	Potassium, total	16	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.16	SAR
	Saturation Percent	30	%
	Conductivity	.07	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.8	pH
	Calcium, total	16	mg/kg
	Potassium, total	14	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	2	mg/kg

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-NW2 Terrestrial Surface Non-Radiological North West 2 (continued)	Sodium Absorption Ratio	.12	SAR
	Saturation Percent	30	%
	Conductivity	.11	mmhos/cm
	Chloride	6	mg/kg Dry
	pH	7.1	pH
	Calcium, total	24	mg/kg
	Potassium, total	20	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.15	SAR
	Saturation Percent	30	%
	Conductivity	.06	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.0	pH
	Calcium, total	11	mg/kg
	Potassium, total	11	mg/kg
	Magnesium, total	2	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.15	SAR
	TS-SE1 Terrestrial Surface Non-Radiological South East 1	Saturation Percent	27
Conductivity		.14	mmhos/cm
Chloride		10	mg/kg Dry
pH		8.1	pH
Calcium, total		42	mg/kg
Potassium, total		13	mg/kg
Magnesium, total		4	mg/kg
Sodium, total		3	mg/kg
Sodium Absorption Ratio		.12	SAR
Saturation Percent		30	%
Conductivity		.13	mmhos/cm

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-SE1 Terrestrial Surface Non-Radiological South East 1 (continued)	Chloride	6	mg/kg Dry
	pH	7.3	pH
	Calcium, total	31	mg/kg
	Potassium, total	16	mg/kg
	Magnesium, total	5	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.13	SAR
	Saturation Percent	27	%
	Conductivity	.10	mmhos/cm
	Chloride	<6	mg/kg Dry
	pH	7.7	pH
	Calcium, total	27	mg/kg
	Potassium, total	12	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.14	SAR
	Saturation Percent	31	%
	Conductivity	.17	mmhos/cm
	Chloride	6	mg/kg Dry
	pH	8	pH
	Calcium, total	58	mg/kg
	Potassium, total	23	mg/kg
	Magnesium, total	6	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	29	%
	Conductivity	.10	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.5	pH
	Calcium, total	24	mg/kg

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-SE1 Terrestrial Surface Non-Radiological South East 1 (continued)	Potassium, total	13	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	30	%
	Conductivity	.11	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.5	pH
	Calcium, total	30	mg/kg
	Potassium, total	13	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	4	mg/kg
	Sodium Absorption Ratio	.18	SAR
	Saturation Percent	29	%
TS-SE2 Terrestrial Surface Non-Radiological South East 2	Conductivity	.09	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.9	pH
	Calcium, total	21	mg/kg
	Potassium, total	15	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	31	%
	Conductivity	.11	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.9	pH
	Calcium, total	28	mg/kg
	Potassium, total	14	mg/kg
Magnesium, total	4	mg/kg	
Sodium, total	2	mg/kg	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-SE2 Terrestrial Surface Non-Radiological South East 2 (continued)	Sodium Absorption Ratio	.09	SAR
	Saturation Percent	27	%
	Conductivity	.06	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.3	pH
	Calcium, total	16	mg/kg
	Potassium, total	7	mg/kg
	Magnesium, total	2	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.12	SAR
	Saturation Percent	31	%
	Conductivity	.10	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.0	pH
	Calcium, total	24	mg/kg
	Potassium, total	21	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.09	SAR
	Saturation Percent	28	%
	Conductivity	.09	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.0	pH
	Calcium, total	21	mg/kg
	Potassium, total	12	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.11	SAR
	Saturation Percent	27	%
	Conductivity	.07	mmhos/cm



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-SE2 Terrestrial Surface Non-Radiological South East 2 (continued)	Chloride	< 6	mg/kg Dry
	pH	6.8	pH
	Calcium, total	16	mg/kg
	Potassium, total	11	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.12	SAR
TS-CT1 Terrestrial Surface Non-Radiological Control 1	Saturation Percent	27	%
	Conductivity	.06	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.9	pH
	Calcium, total	11	mg/kg
	Potassium, total	13	mg/kg
	Magnesium, total	2	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.15	SAR
	Saturation Percent	33	%
	Conductivity	.11	mmhos/cm
	Chloride	7	mg/kg Dry
	pH	6.7	pH
	Calcium, total	25	mg/kg
	Potassium, total	13	mg/kg
	Magnesium, total	5	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	31	%
	Conductivity	.12	mmhos/cm
	Chloride	12	mg/kg Dry
	pH	6.9	pH
	Calcium, total	16	mg/kg

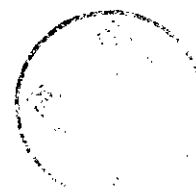


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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-CT1 Terrestrial Surface Non-Radiological Control 1 (continued)	Potassium, total	8	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.12	SAR
	Saturation Percent	32	%
	Conductivity	.08	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.6	pH
	Calcium, total	15	mg/kg
	Potassium, total	19	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	1	mg/kg
	Sodium Absorption Ratio	.62	SAR
	Saturation Percent	32	%
	Conductivity	.10	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	6.3	pH
	Calcium, total	21	mg/kg
	Potassium, total	36	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	29	%
	Conductivity	.06	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7	pH
	Calcium, total	13	mg/kg
	Potassium, total	23	mg/kg
	Magnesium, total	2	mg/kg
	Sodium, total	2	mg/kg

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-CT1 Terrestrial Surface Non-Radiological Control 1 (continued)	Sodium Absorption Ratio	.14	SAR
TS-CT2 Terrestrial Surface Non-Radiological Control 2	Saturation Percent	25	%
	Conductivity	.07	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.9	pH
	Calcium, total	18	mg/kg
	Potassium, total	6	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.11	SAR
	Saturation Percent	32	%
	Conductivity	.19	mmhos/cm
	Chloride	9	mg/kg Dry
	pH	7.1	pH
	Calcium, total	52	mg/kg
	Potassium, total	24	mg/kg
	Magnesium, total	10	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	29	%
	Conductivity	.12	mmhos/cm
	Chloride	9	mg/kg Dry
	pH	7.0	pH
	Calcium, total	32	mg/kg
	Potassium, total	17	mg/kg
Magnesium, total	6	mg/kg	
Sodium, total	3	mg/kg	



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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-CT2 Terrestrial Surface Non-Radiological Control 2 (continued)	Sodium Absorption Ratio	.13	SAR
	Saturation Percent	25	%
	Conductivity	.09	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.5	pH
	Calcium, total	23	mg/kg
	Potassium, total	8	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.10	SAR
	Saturation Percent	17	%
	Conductivity	.13	mmhos/cm
	Chloride	7	mg/kg Dry
	pH	7.2	pH
	Calcium, total	30	mg/kg
	Potassium, total	24	mg/kg
	Magnesium, total	6	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.09	SAR
	Saturation Percent	32	%
	Conductivity	.11	mmhos/cm
	Chloride	13	mg/kg Dry
	pH	7.2	pH
	Calcium, total	30	mg/kg
Potassium, total	13	mg/kg	
Magnesium, total	5	mg/kg	
Sodium, total	2	mg/kg	
Sodium Absorption Ratio	.09	SAR	

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-WE1 Terrestrial Surface Non-Radiological WIPP East 1	Saturation Percent	27	%
	Conductivity	.10	mmhos/cm
	Chloride	9	mg/kg Dry
	pH	7.4	pH
	Calcium, total	28	mg/kg
	Potassium, total	10	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	4	mg/kg
	Sodium Absorption Ratio	.19	SAR
	Saturation Percent	27	%
	Conductivity	.09	mmhos/cm
	Chloride	7	mg/kg Dry
	pH	7.8	pH
	Calcium, total	23	mg/kg
	Potassium, total	9	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	4	mg/kg
	Sodium Absorption Ratio	.21	SAR
	Saturation Percent	29	%
	Conductivity	.12	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.6	pH
	Calcium, total	32	mg/kg
	Potassium, total	12	mg/kg
	Magnesium, total	4	mg/kg
	Sodium, total	2	mg/kg
	Sodium Absorption Ratio	.09	SAR
	Saturation Percent	33	%
	Conductivity	.10	mmhos/cm
	Chloride	< 6	mg/kg Dry

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SAMPLE ANALYSIS BY LOCATION	PARAMETER	RESULTS	UNIT
TS-WE1 Terrestrial Surface Non-Radiological WIPP East 1 (continued)	pH	8.0	pH
	Calcium, total	30	mg/kg
	Potassium, total	9	mg/kg
	Magnesium, total	3	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.14	SAR
	Saturation Percent	29	%
	Conductivity	.15	mmhos/cm
	Chloride	6	mg/kg Dry
	pH	7.9	pH
	Calcium, total	44	mg/kg
	Potassium, total	15	mg/kg
	Magnesium, total	5	mg/kg
	Sodium, total	3	mg/kg
	Sodium Absorption Ratio	.11	SAR
	Saturation Percent	25	%
	Conductivity	.09	mmhos/cm
	Chloride	< 6	mg/kg Dry
	pH	7.8	pH
	Calcium, total	22	mg/kg
	Potassium, total	10	mg/kg
Magnesium, total	4	mg/kg	
Sodium, total	3	mg/kg	
Sodium Absorption Ratio	.15	SAR	